



Delo[®] Syn-TDL SAE 75W-90

Premium performance fully synthetic Total Driveline Lubricant (Supersedes Multigear S SAE 75W-90)

Product description

Delo Syn-TDL SAE 75W-90 is a premium performance fully synthetic Total Driveline Lubricant offering extended drain capability, designed for API GL-4 and API GL-5 applications, and offers good thermal stability in higher temperature operations.

Delo Syn-TDL SAE 75W-90 is formulated with fully synthetic base oils in combination with an advanced high performance additive system.

Customer benefits

- Specially tuned friction characteristics make the product suitable for use in many synchronised manual transmissions and final drives, allowing inventory rationalisation
- Offers significantly longer service than conventional mineral gear oils in many applications - up to twice as long in transmissions and three times as long in drive axles
- Long-drain capability helps reduce overhaul and maintenance downtime
- High performance advanced additive system provides reliable extreme pressure protection and wear resistance
- Low-temperature fluidity offers component protection by allowing rapid oil circulation during cold weather start-up
- High Viscosity Index and good shear stability help provide viscosity and film thickness sufficient for effective high temperature lubrication throughout fluid service life



Product highlights

- Suitable for many synchronised manual transmissions and final drives
- Long-drain capability
- Offers extended service capabilities
- Provides reliable EP protection and wear resistance
- Offers rapid oil circulation during cold start-up
- High Viscosity Index and good shear stability

Selected specification standards include:

API	Bosch
DAF	Detroit Diesel
MAN	Mercedes-Benz
NATO	SAE
Scania	Volvo
ZF	

Applications

- Delo Syn-TDL SAE 75W-90 is designed for use in automotive manual transmissions which require a fluid with API GL-4 or GL-5 performance, and for hypoid drive axles where an EP oil meeting API GL-5 or MT-1 is required. It is approved against standard SAE J2360 (former MIL-PRF-2105E)
- The thermal stability makes Delo Syn-TDL SAE 75W-90 suitable for use in applications with higher operating temperatures than is possible when using mineral gear oils. The special characteristics of the synthetic base oils lead to a reduction in the operating temperature, further extending the service capability in arduous operating conditions, or improving fuel economy in normal service conditions. It is capable of significantly longer service intervals than conventional mineral gear oils in many applications: up to twice as long in transmissions and more than three times as long in drive axles.
(The precise service interval varies according to application and service severity – refer to the manufacturers' literature for further details)
- Delo Syn-TDL SAE 75W-90 is not recommended for use in ZF transmissions fitted with intarders (this includes some models from constructors such as DAF and MAN). For these exceptions, use an approved fluid such as Delo Syn-MTF XZ 75W-80

Approvals, performance and recommendations

Approvals

- DAF Gearbox oil for ZF gearboxes ^[1]
- Detroit Diesel DFS Axle Gear Oil Specification 93K219.01
- MAN 341 Type Z2 ^[14]
- MAN 342 Type S1 ^[14]
- Mercedes-Benz MB-Approval 235.8
- SAE J2360 ^[2]
- Scania STO 1:0 ^[3] *
- Volvo 97312 ^[12]
- ZF TE-ML 02B ^[4]
- ZF TE-ML 05A ^[4]
- ZF TE-ML 12L ^[4]
- ZF TE-ML 12N ^[4]
- ZF TE-ML 16F ^[4]
- ZF TE-ML 17B ^[4]
- ZF TE-ML 19C ^[4]
- ZF TE-ML 21A ^[4]

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Performance

- API GL-4
- API GL-5
- API MT-1
- Bosch TE-ML 08 ^[9]
- DAF Gearbox oil for Eaton gearboxes ^[5]
- DAF Rear axle without hub reduction ^[6]
- DAF Rear axle with hub reduction ^[7]
- NATO 0-226
- ZF TE-ML 07A ^[9]
- ZF TE-ML 12B ^[10]

Recommendations

- MAN 341 Type E3 ^[13]
- MAN 3343 Type S ^[8]
- ZF TE-ML 05B ^[11]
- ZF TE-ML 21B ^[11]

* Approval on this formulation obtained under previous name – Multigear S SAE 75W-90

^[1] ZF gearboxes without intarder, standard changing interval.

^[2] Approval number: PRI GL 0507.

^[3] Approved for use in gearboxes; also permitted in some lightly-loaded long-haul axle applications (trucks - operation types 0 and 1; busses - operation type 1). Other axle applications require higher viscosity fluids.

^[4] ZF registration number: ZF003353

^[5] Eaton gearbox applied in vehicle series LF45/55, 65/75/85 CF, CF 65/75/85; extended changing interval.

^[6] Except for type V200/V400 (requires an SAE 85W-140 oil). Extended changing interval.

^[7] Except for type 1356 (requires special product). Standard changing interval.

^[8] Formerly approved. MAN 3343 Type S is now obsolete and has been replaced by 341 Type E3 (now obsolete) and 341 Type Z2 (manual transmissions), and 342 M3 (axles and transfer cases).

^[9] List formerly administered by ZF. Products meeting the necessary performance requirements are approved for use, but there is no product listing.

^[10] ZF has transferred this approval from TE-ML 12B to a new class, TE-ML 12N, which is a higher performance level.

^[11] In April 2017, ZF combined class TE-ML 05B with class TE-ML 05A, and class TE-ML 21B with class TE-ML 21A.

^[12] Volvo approval number: 039.

^[13] The product meets all of the requirements, but MAN made this specification obsolete at the end of 2016.

^[14] MAN approval number: TUC 3419/97.

Typical test data		
Test	Test Methods	Results
Shelf Life: 60 months from date of filling indicated on the product label.		
Viscosity, Kinematic, 100°C, mm ² /s	ASTM D445	14.7
Viscosity, Kinematic, 40°C, mm ² /s	ASTM D445	98
Viscosity, Brookfield, -40°C, mPa.s	ASTM D2983	56,000
Viscosity Index	ASTM D2270	157
Density, 15°C, kg/l	ASTM D4052	0.868
Flash Point COC, °C	ASTM D92	202
Pour Point, °C	ASTM D5950	-54

The information given in the typical data does not constitute a specification but is an indication based on current production and can be affected by allowable production tolerances. The right to make modifications is reserved. This supersedes all previous editions and information contained in them.

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Health, safety, storage and environmental Based on current available information, this product is not expected to produce adverse effects on health when used for the intended application and in accordance with the recommendations provided in the Material Safety Data Sheet (MSDS). MSDS's are available upon request through your local sales office, or via the Internet. This product should not be used for purposes other than its intended use. When disposing of used product, take care to protect the environment and follow local legislation.

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